

10/620,113

BRI/017

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of transferring data comprising the following steps:
  - a) transmitting, at a rate of transmission that is continuously-variable and is not selected a priori, data that includes synchronization bits and bits conveying other information; and,
  - b) receiving said transmitted data by the following steps:
    1. ascertaining the rate of transmission by sampling at least some of said synchronization bits; and,
    2. receiving, at the ascertained rate of transmission, said bits representing other information,wherein said data comprises a packet that includes two or more words containing synchronization bits, and wherein step b) is conducted on at least two words containing synchronization bits, and wherein said at least two words containing synchronization bits are separated by one or more words containing said bits conveying other information.
2. (canceled).
3. (previously presented) The method of claim 1, further comprising the steps of:
  - a) establishing a system that includes a bus having encountered transmission conditions limiting the possible

10/620,113

BRI/017

rate of transmission on said system, which conditions are not known in advance of establishing said system but are encountered after establishment of the system, wherein said steps of transmitting and receiving are performed over said system; and,

- b) if said rate of transmission exceeds said possible rate of transmission under said encountered transmission conditions, altering said rate of transmission so as to equal a rate that is within said possible rate of transmission under said encountered transmission conditions.

4. (canceled)
5. (original) The method of claim 3, wherein said bus is a 2-line serial bus.
6. (original) The method of claim 1, wherein said step of transmitting is performed by a master device, and said step of receiving is performed by a slave device.
7. (previously presented) The method of claim 6, further comprising the step of transmitting other data back from said slave device to said master device at a rate of transmission determined in step b) of claim 1.
8. (previously presented) The method of claim 7, wherein commands are transmitted in step a) of claim 1 and said other data are responsive to said commands.

10/620,113

BRI/017

9. (original) The method of claim 6, wherein said slave device is a detonator and said master device is a blasting machine.
10. (previously presented) The method of claim 1, wherein said sampling is effected by the use of a counter/timer monitoring transitions in voltage level.
11. (previously presented) The method of claim 10, wherein rates of sampled synchronization bits are averaged together.
12. (previously presented) The method of claim 1, wherein within at least one word containing synchronization bits, said synchronization bits precede said bits conveying other information.
13. (currently amended) A device capable of receiving data transmitted at a rate that is continuously-variable and is not selected a priori, said data comprising a packet that includes two or more words containing synchronization bits and that includes bits conveying other information, said device including electronic circuitry that includes means for ascertaining the rate of transmission by sampling at least some synchronization bits of multiple words and means for receiving subsequently transmitted bits at the ascertained rate of transmission, wherein said sampled multiple words are separated by one or more words containing bits conveying other information.

10/620,113

BRI/017

14. (original) The device of claim 13, wherein said device is a slave device, and said data is from a master device.
15. (original) The device of claim 14, wherein said device is configured and/or programmed to transmit other data back to said master device at the ascertained rate of transmission.
16. (original) The device of claim 15, wherein said slave device is a detonator and said master device is a blasting machine.
17. (currently amended) A system for transferring data comprising:
  - a) a bus;
  - b) at least one master device including means for connection to said bus, said master device including means for transmitting, at a rate that is continuously-variable and is not selected a priori, data comprising a packet that includes two or more words containing synchronization bits and that includes bits conveying other information; and,
  - c) at least one slave device including means for connection to said bus, said slave device including means for ascertaining the rate of transmission by sampling at least some synchronization bits of multiple words and means for receiving said bits conveying information at the ascertained rate of transmission, wherein said sampled multiple words are separated by one or more words containing bits conveying other information.

10/620,113

BRI/017

18. (previously presented) The system of claim 17, wherein said bus has encountered transmission conditions that limit the possible rate of transmission on the system, which conditions are not known in advance of establishing the system but are encountered after establishment of the system, and wherein said master device is capable of varying the rate of its transmission during transmission, if said rate of transmission exceeds said possible rate of transmission under said encountered transmission conditions, so as to equal a rate that is within said possible rate of transmission under said encountered transmission conditions.
19. (original) The system of claim 18, wherein said slave device is configured and/or programmed to transmit other data back to said master device at the ascertained rate of transmission.
20. (original) The system of claim 19, wherein said slave device is a detonator and said master device is a blasting machine.
21. (previously presented) The system of claim 17, wherein said bus is a 2-line serial bus.
22. (new) The device of claim 14, wherein the slave device and master device are connected by a 2-line serial bus.